

April 3, 2019

## Summary of Sampling Results (through March 30, 2019)

### ASPECT:

The U.S. EPA Airborne Spectral Photometric Environmental Collection Technology (ASPECT) has flown over 17 flights from March 17, 2019 through April 3, 2019, near the ITC site. The results from ASPECT were compared to the ASPECT list of the Texas Commission on Environmental Quality (TCEQ) short-term Air Monitoring Comparison Values (AMCVs). On March 20, 2019, ASPECT found that a single reading of isoprene which exceeded the short-term AMCV. On March 22, 2019, ASPECT found exceedances of the short-term AMCVs for butadiene and isoprene. The ASPECT list of short-term AMCVs were not exceeded during most of the ASPECT flights.

### TAGA:

The Trace Atmospheric Gas Analyzer (TAGA) has sampled air from March 21, 2019 through April 3, 2019, and has analyzed the air samples for benzene, toluene and xylene. The TAGA air sampling results were compared to the Texas Commission on Environmental Quality (TCEQ) short-term Air Monitoring Comparison Values (AMCVs) and found no exceedances of the short-term AMCVs for toluene and xylene. The TAGA air sampling results has found exceedances of the short-term AMCV for benzene (0.18 ppm). These exceedances of the short-term AMCV for benzene primarily have occurred near the ITC site.

### Hand-Held Real-Time Air Monitoring:

EPA is monitoring near the ITC facility as well as in the community using MultiRAE portable multi-gas monitors. These monitors provided real-time concentrations of selected gases including hydrogen sulfide, carbon monoxide, and oxygen. Additionally, the tool measures total volatile organic compounds (VOCs) such as naphtha, benzene, xylene, and toluene. The MultiRAE also captures the instantaneous lower explosive limit. The MultiRAE is an initial screening tool to help the field responders make informed decisions based on actual measurements. On occasion the MultiRAE reading near the ITC site have exceeded the short-term AMCV for benzene.

### Surface Water Sampling:

EPA is conducting surface water sampling during the ITC response. The surface water samples are collected from multiple locations in Tucker Bayou, Buffalo Bayou and the San Jacinto River. The surface water samples are analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), chemical oxygen demand (COD), and oil & grease. The results from the sampling event were compared to the Texas Commission on Environmental Quality (TCEQ) Surface Water Quality Standards (WQS), or to TCEQ Texas Risk Reduction Program surface water protective concentration levels (PCLs), if a WQS was not available for a chemical. On March 21, 2019, the surface water sample collected at the confluence of Tucker Bayou and Buffalo Bayou (BB-02) exceeded the PCL for oil and grease, and the WQS for naphthalene, benzene and total xylenes. On March 25, 2019, the surface water sample collected on Buffalo Bayou at the Battleship Texas (BB-05) exceeded the PCL for oil and grease. No exceedances of the Texas protective values have occurred since March 25, 2019.

To date we have found PFAS in every surface water sample analyzed for PFAS. The surface water samples taken from the confluence of Tucker Bayou and Buffalo Bayou have the highest concentrations of perfluorooctane sulfonate (PFOS) at approximately 3800 ng/L.

Perfluorooctanoic acid (PFOA) concentrations found at the confluence are approximately 120 ng/L. These values are well above EPA's recommended drinking water advisory level of 70 ng/L for PFOS and PFOA. However, the advisory level is not applicable in surface waters which do not have drinking water use.